



U.S. Department of Energy
Office of River Protection

0057128

P.O. Box 450
Richland, Washington 99352

APR 29 2002

02-OMD-020

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MAY 08 2002

EDMC

Mr. Michael A. Wilson, Program Manager
Nuclear Waste Program
State of Washington
Department of Ecology
1315 W. Fourth Avenue
Kennewick, Washington 99336

Dear Mr. Wilson:

**TRANSMITTAL OF THE SECOND QUARTERLY REPORT FOR THE FISCAL YEAR
(FY) 2002 AND COMPLETION OF MILESTONES D-001-00-R12 IN SUPPORT OF THE
SINGLE-SHELL TANK (SST) INTERIM STABILIZATION (IS) CONSENT DECREE**

This letter provides the second quarterly report and data (Attachment 1) for FY 2002, submitted in compliance with the quarterly reporting requirements for Milestone D-001-00-R12 established in the SST IS Consent Decree No. CT-99-5076-EFS, filed with the U.S. District Court on September 30, 1999.

All of the enforceable Consent Decree milestones have been met to date. The most recent, milestone D-001-04-T01, complete pumping of tanks 241-U-103, 241-U-105, 241-U-102, and 241-U-109 was met during the quarter ending September 30, 2001, and previously reported in the Fourth Quarterly Report for FY 2001 (01-OMD-041) and in letter 02-OMD-018.

Among these were the two remaining organic complexed waste tanks, 241-U-102 and 241-U-109, which have met the interim stabilization criteria. The SST IS Evaluation Forms for these two tanks are being finalized and will be issued by the Tank Farm Contractor in April. Pumping of tank 241-SX-105 was completed in April 2001, but continues to be under evaluation because the tank liquid level has not yet stabilized.

Operational issues are affecting IS operations and are being worked. Recent testing of the 244-BX transfer pump confirmed that it had failed. This will preclude pumping from BY Farm until it is replaced. Initial estimates indicate that it will take about three months to procure, test, and install a new pump. Work to replace the failed transfer line in SX Farm is on-going. An integrity test of a direct-buried line, SL-117, is scheduled for April 2002 with a new line to be installed later in the year. A caustic flush of the U Farm transfer line is also scheduled for April 2002. Pumping from the U Farm will be delayed until that line is available.

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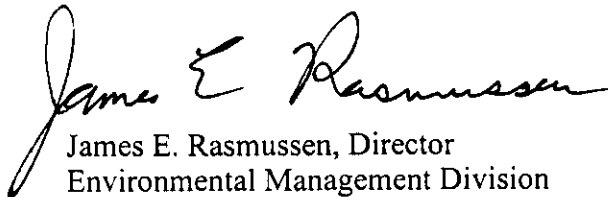
The ability of the Project to meet the Consent Decree waste volume remaining milestone, D-001-12V, by September 30, 2002, continues to be a concern. While we have experienced unforeseen delays in installation and/or repair of equipment, including a failure from the hose-in-hose transfer line system and persistent transfer line blockage, we are actively working towards restarting pumping activities. These problems, combined with those previously reported, have a significant and cumulative adverse impact on the schedule. A revised forecast has been prepared and is included as a graph in the attachment. This forecast includes the down-time associated with the replacement of the 244-BX pump. This forecast indicates that meeting the milestone is achievable, provided the tanks will drain as predicted, and there are no other major unanticipated failures. The Consent Decree milestone for September 30, 2002, is that the pumpable liquid remaining is less than 18 percent. During the second quarter, the percent remaining was reduced from 56 percent to 44 percent, which is consistent with meeting the milestone.

A total waste volume transferred during this quarter was about 475,000 gallons. This brings the total waste transfer for the Project to 1.82 million gallons.

One letter of direction was sent to the Contractor requesting a recovery plan for regaining the lost contingency and meeting the remaining Consent Decree milestones (Attachment 2). The graph on page 3 of Attachment 1, illustrates the recovery plan.

If you have any questions, please contact me, or your staff may contact Andrew J. Stevens, Operations and Maintenance Division, (509) 376-8235.

Sincerely,



James E. Rasmussen, Director
Environmental Management Division

OMD:AJS

Attachments (2)

cc: See page 3

Mr. Michael A. Wilson
02-OMD-020

-3-

APR 29 2002

cc w/attach:

D. Allen, CHG
W. T. Dixon, CHG
D. J. Washenfelter, CHG
R. Gay, CTUIR
J. Lyon, Ecology
R. F. Stanley, Ecology
D. Bartus, EPA c/o Ecology
J. S. Hertzfel, FHI
O. S. Kramer, FHI
T. Martin, HAB
P. Sobotta, NPT
K. Niles, Oregon Energy
E. M. Mattlin, RL
R. Jim, YN
TPA Administrative Record

CONSENT DECREE REPORTING DATA

ITEM 1: ACCOMPLISHMENTS AND ISSUES

SECOND QUARTER ACCOMPLISHMENTS: FY 2002

- Resumed pumping in A-101 and AX-101.
- Evaluated each hose-in-hose transfer system in S farm and BY farm and determined that it continues to be serviceable.
- Resumed pumping S-111.
- Completed the annual integrity test of the U farm transfer lines.
- Completed installation of the hose-in-hose transfer system for U-111.
- Transferred 475,000 gallons of waste out of single-shell tanks.
- Completed a cross-site transfer (490,000 gallons of waste).
- Transfer waste from the DST receiving tank, AP-102, to AP-107 and AP-108.
- Issued a revision to the Project Plan (HNF-2358, Revision 5).

SIX MONTH LOOK AHEAD

- Replace the S-102 pump/leg assembly and resumed pumping.
- Performed a back-flush of the transfer line between SY farm and U farm.
- Perform caustic flush of the U farm transfer line to clear the obstruction.
- Resume pumping U-107 and U-108.
- Complete equipment installation and initiate pumping in U-111.
- Replace the pump in 244-BX and resume pumping BY-105 and BY-106.
- Test the SL-117 line to accelerate resumption of pumping of SX-102 and SX-103.
- Develop a plan and perform mock up tests for removing and evaluating the failed SX transfer line.
- Complete installation of replacement hose-in-hose transfer systems to support the operation of the tanks in S farm.
- Replace the pump in SX-101 and resume pumping.
- Initiate saltcake retrieval activities in U-107.
- Initiate pumping in S-101 and S-107.
- Issue the Interim Stabilization Evaluation Forms confirming that tanks U-102 and U-109 had met the interim stabilization criteria.
- Complete the data evaluation on tank SX-105 to verify that the Interim Stabilization criteria have been met.
- Perform a cross-site transfer of 500,000 gallons.
- Perform a waste transfer from the DST receiver (AP-102) to AP-107.

ISSUES AND RECOVERY

1. The volume of waste that has been transferred has been far less than had been previously projected due to the delays in installing and/or repairing equipment, and a transfer line issues. Consent Decree milestone D-001-012V is "at-risk."

The Tank Farm Contractor is striving to recover the schedule related to pumping initiation. These problems are primarily associated with the equipment failures discussed above that have prevented pumping from proceeding and diverted resources from new tank starts.

A project lead for each future tank start has been established. This individual will track the detailed schedule to quickly identify any problems and procure the necessary resources to minimize the risks of not meeting the schedule.

A Pumping Response and Optimization team has been established to focus on supporting pumping operation and optimizing pump operations.

The higher volume Sundyne™ pumps have been installed in A and AX farms where there is expected to be a large volume of supernate. The Sundyne™ pumps have also been installed in the two tanks in BY farm. These pumps have operated very well during the quarter, and have made good progress to recover volume shortfall. The revised volume project indicates that the Consent Decree Milestone will be met if the tanks continue to drain as projected.

2. The HIHTS between SX and S farms failed when the contractor tried to clear an obstruction from the line, preventing further transfers from SX farm until the line is replaced. There are potential implications on the integrity of other HIHTS.

The Tank Farm Contractor has inspected the other HIHTS, and, finding no indication of potential failures, has certified the lines for continued use.

A direct buried line has been identified that, following an integrity test, can be used to transfer waste out of SX farm. The testing will be performed as soon as the recovery plan for the SX exhaustor is completed and approved.

Design and procurement are underway for a replacement line.

3. The transfer line between U farm and SY farm is partially obstructed and pumping has been suspended until the obstruction can be cleared. Continued pumping would risk completely plugging the line making clearing the obstruction much more difficult.

The Tank Farm Contractor is fabricating equipment to allow a water flush in the reverse direction to see if the obstruction will move back into the SST. Hot water flushes from U farm toward SY farm have not been successful. The Contractor is also developing plans to dissolve the obstruction using an eight molar caustic solution.

4. The BY transfer pump is currently inoperable and several hot water flushes have failed to cure the problem. This is preventing transfers from BY-105 and BY-106.

The Tank Farm Contractor is modifying the piping system to allow a reverse flush to determine if the rotor is clogged. In parallel, work has been initiated to obtain and install a replacement pump.

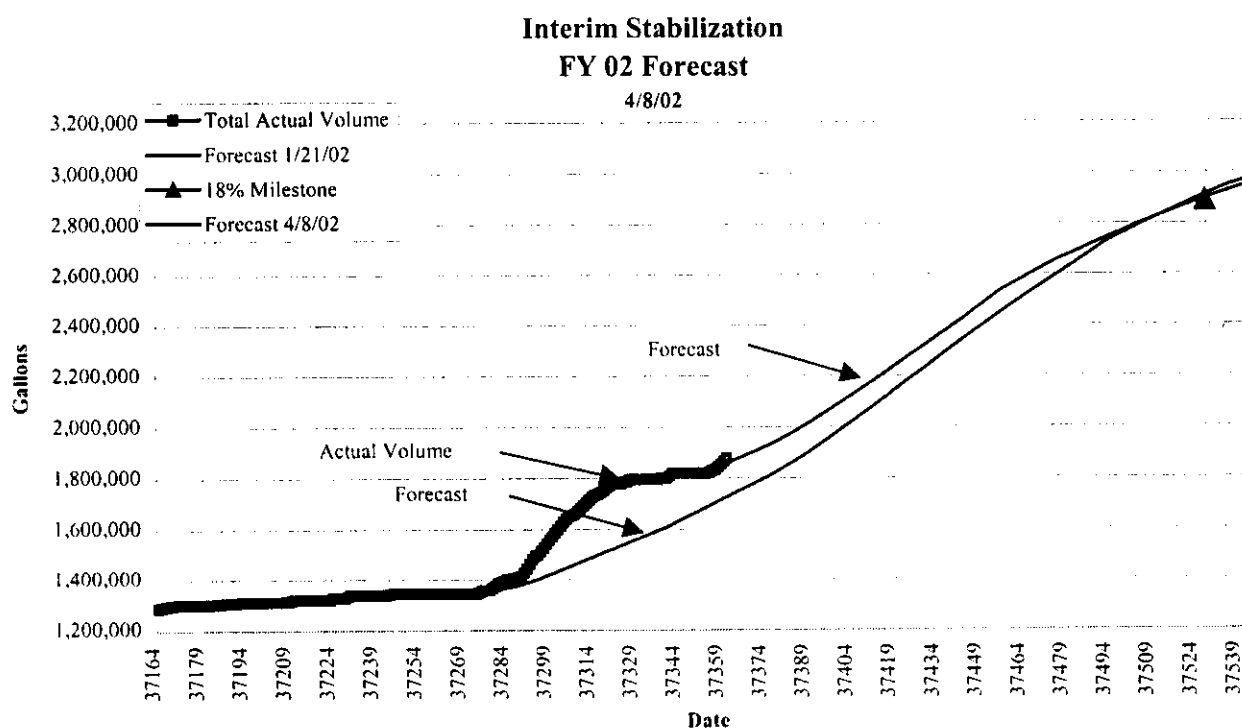
ITEM 2: SCHEDULE COMPLIANCE

FY 2002 CONSENT DECREE MILESTONES

No Consent Decree Milestones were due during the quarter ending March 31, 2002, and no milestones were completed.

CONSENT DECREE SCHEDULE STATUS

The next scheduled milestone, D-001-012V, calls for the contractor to reduce the volume of pumpable liquid remaining to less than 18 percent of the total liquid. The current volume projection indicates that this, while challenging, can be achieved.



An "unenforceable milestone," D-001-004-T01, requires the completion of pumping of four U Farm tanks (U-102, U103, U-106, and U-109) by April 15, 2002. The completion of this milestone was reported previously in the fiscal year 2001 year-end report.

The contractor is also on schedule to meet or exceed each of the remaining tank-start milestones specified in the Consent Decree.

ITEM 3: SCHEDULE RECOVERY ACTIONS

Interim Stabilization is currently facing several potentially serious maintenance issues as indicated in the preceding sections. Interim Stabilizations is tapping other resources both within the Contractor and externally to expedite resolution of these issues.

ITEM 4: BUDGET/COST STATUS

The FY 2002 budget has remained constant through the second quarter at \$28.3 Million. Performance at the end of the second quarter was -14% schedule variance (-\$2,040.3K), and -3% cost variance (-\$319.4K). The major contributors to the schedule variance was the series of fieldwork delays that began in FY 2001 (i.e. failed SN-247 transfer line and U-107 degraded transfer line) causing the C-103 tank start-up preparation work and the U-107 Salt cake Dissolution Proof of concept to fall behind schedule. The negative cost variance is negligible and within the threshold.

ITEM 5: DOE DIRECTIVES

The U.S. Department of Energy, Office of River Protection issued one letter, 02-OMD-002, (attached) directing the Contractor to "provide a recovery plan for regaining the lost contingency and meeting the remaining Consent Decree milestones." The plan was issued on February 25, 2002.

Attachment 2

02-OMD-020

OMD letter, 02-OMD-002, dated January 28, 2002



U.S. Department of Energy

Office of River Protection

P.O. Box 450

Richland, Washington 99352

JAN 28 2002

02-OMD-002

Mr. E. S. Aromi, Acting President
and General Manager
CH2M HILL Hanford Group, Inc.
Richland, Washington 99352

Dear Mr. Aromi:

CONTRACT NO. DE-AC27-99RL14047 – CONSENT DECREE MILESTONE D-001-12V

The subject Consent Decree milestone is due on September 30, 2002, and requires that no more than 18 percent of pumpable liquid remains in tanks under interim stabilization. The Interim Stabilization Project is significantly behind planned performance per the project plan. The attached graph illustrates how little margin remains for meeting the legal milestone.

Please provide a recovery plan for regaining the lost contingency and meeting the remaining Consent Decree commitments. If the plan's basis is different from that contained in the latest Single-Shell Tank Interim Stabilization Project Plan (HNF-2358, Revision 4) then technical justification should be provided. Your reply is requested within two weeks of the date of this letter.

In view of the vanishing margin in meeting the milestone, alternative solutions should also be reviewed as a means to schedule recovery. Please identify any alternatives that could provide schedule recovery and briefly discuss the merits of each.

If you have any questions, please contact me, or your staff may contact Andy Stevens, Operations and Maintenance Division, (509) 376-8235.

Sincerely,

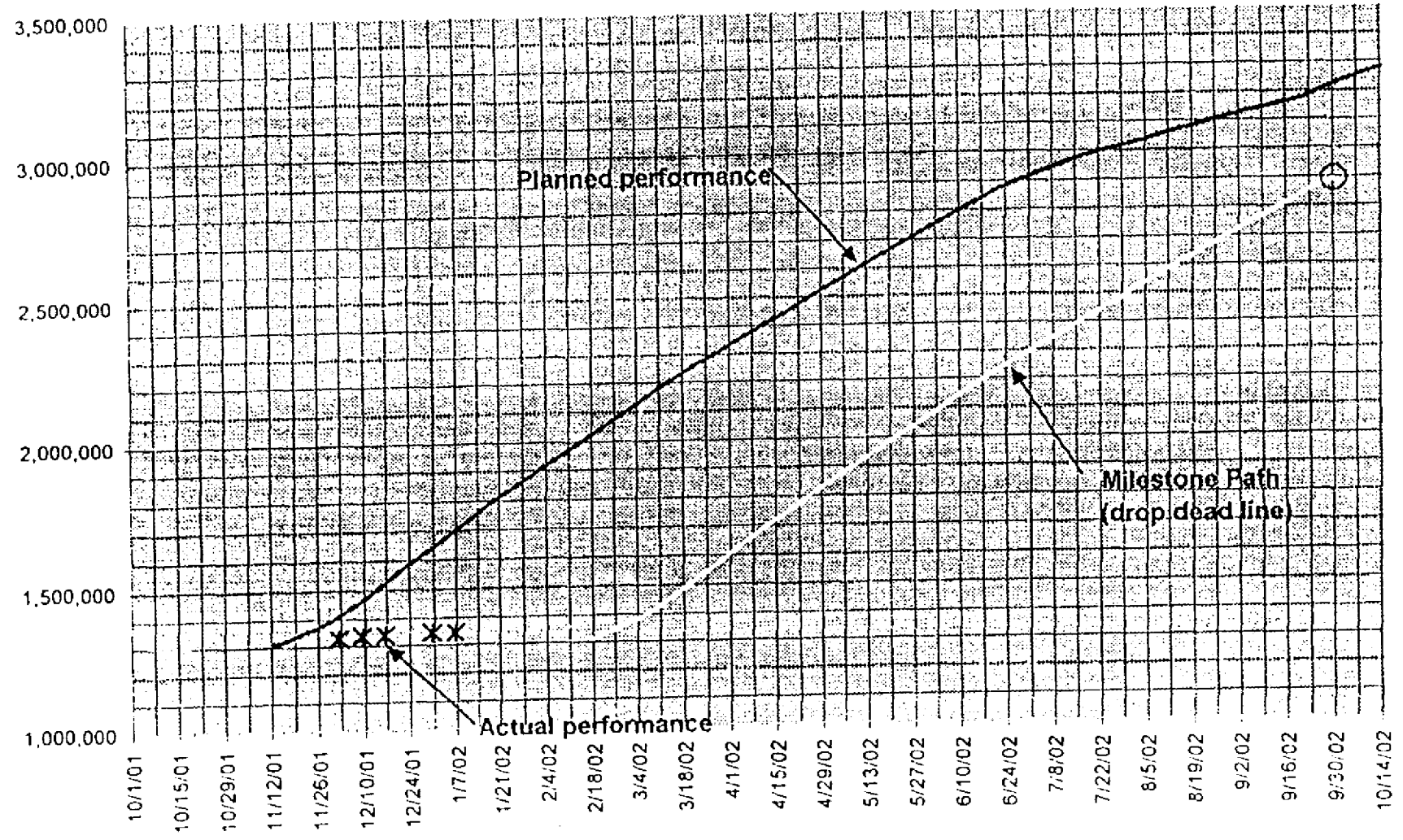
Judith S. O'Connor
Contracting Officer

OMD:AJS

Attachment

cc w/attach:
A. C. Youngblood, CHG

18% Milestone IS Performance



Mr. E. S. Aromi
02-OMD-002

-2-

JAN 28 2002

bcc: OMD Rdg File
OMD Off File
ORP Rdg File
J. S. O'Connor, AMIC
J. F. Schwier, AMIC
J. H. Swailes, AMO
J. E. Rasmussen, EMD
D. C. Bryson, OMD
A. J. Stevens, OMD
D. J. Williams, OMD

Record Note: A copy was hand delivered to Suzanne
Dahl at 1:00 pm on 4/29/02. (MEB)

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JAN 28 2002

DOE-ORP/ORPCC